February 14, 2005

Mr. Jonathan Trout
Louisville Metro Air Pollution Control District
850 Barrett Avenue
Louisville, Kentucky 40204

Re: Comments on STAR Program

Dear Mr. Trout:

Established in 1911, Associated Industries of Kentucky ("Association" or "AIK") is the Commonwealth's largest and oldest industrial trade association. Associated Industries of Kentucky's mission is to enhance the competitiveness of manufacturers by shaping a legislative and regulatory environment conducive to economic growth, and to increase understanding among policymakers, the media, and the general public about the importance of manufacturing to America's economic strength.

Many of our Jefferson County members will be impacted by the STAR Program that has been proposed by the Louisville Metro Air Pollution Control District ("LMAPCD"). Associated Industries of Kentucky has adopted the following regarding environmental policies:

(a) they should consider cost-benefit relationships;

(b) they should consider technical and economic feasibility; and

(c) they must be based on sound science.

The Association's initial review and discussions with our membership indicates that the program has not adequately considered the cost-benefit relationships associated with the program, the technical and economic feasibility of the program, and it does not appear to be based on sound science. For these reasons, we believe that the program should be reconsidered, taking into account the principles stated above, which should form the basis of any regulatory program.

The goal of the STAR Program is laudable, i.e., to reduce the exposure of individuals to toxic chemicals that may exceed safe levels. The program was prompted by a study in West Louisville that indicated that 18 toxic chemicals were identified in the ambient air at unhealthful levels. It was anticipated that the program to address this study would focus on the 18 identified chemicals; however, the entire STAR Program regulates closer to 200 chemicals and is not limited to the 18 that have been alleged to be of concern. Additionally, the program imposes burdens on other operations of manufacturers that have little or no relationship to the emission of toxic air pollutants. Thus, while the program is entitled "Strategic Toxic Air Reduction," it does

not appear to be "strategic" and, in large part, will not produce "reductions" despite a severe burden being placed upon both small and large manufacturing operations.

The Regulatory Development Process

After the release of the final West Jefferson County Risk Assessment, the LMAPCD resolved to develop a program to address the chemicals of concern that were identified in the report. Many of the stakeholders in Jefferson County, including members of the Association, offered to assist in assembling a program that would address the targeted chemicals. Nevertheless, the program was developed without the input of any outside stakeholders, including environmentalists, industries and even Board members.

Although LMAPCD held many meetings with stakeholders after the first draft STAR program was released, including AIK, the substantive comments submitted by AIK, AIK member companies, and other stakeholders were ignored, dismissed in the LMAPCD response to comment, or superficially addressed by LMAPCD. Therefore, AIK must repeat most of the substantive comments that were submitted during the October 2004 informal comment period.

Associated Industries of Kentucky has repeatedly demonstrated its ability and willingness to be part of a consensus building process. Most recently, we worked with the environmental community, state regulatory officials, and many other groups during the formulation of the Kentucky Brownfields program. A similar process, including the process described in the Risk Management Plan proposal in the West Jefferson air toxics study (West Jefferson County Community Task Force, West Louisville Air Toxics Study, Risk Management Plan Part 1, Process and Framework; Sciences International, April 2003) would have greatly benefited the Jefferson County community had it been undertaken at the outset of this endeavor. The Risk Management Plan describes one process that would benefit this endeavor, including community participation and detailed risk-emission relationship development. We believe that it is not too late to adopt this consensus building process to develop a regulation that will target emissions of concern to Jefferson County residents. The Association believes that the process of developing the proposed risk analysis proposed in Regulation 5.30 would serve as a perfect opportunity for the LMAPCD to engage industry and the community in the necessary process of identifying the entire population of airborne risk drivers in Jefferson County. The Association also believes that these regulations have implications beyond the jurisdiction of LMAPCD and that others outside the district should be engaged in further study and development of the regulations. After restarting the public input process, LMAPCD will likely offer substantial regulatory changes, which will need to be submitted through the public comment process a second time.

Parts Of The Program Will Impact Businesses With No Toxic Emissions

The scope of the proposed STAR Program greatly exceeds what is necessary to address the toxics identified in the West Jefferson County Risk Assessment. As an example, the LMAPCD has re-written Regulation 1.07 related to excess emissions during startup, shutdowns and malfunctions and created a new Regulation 1.20, allowing the LMAPCD to require a company to implement a malfunction prevention program. The LMAPCD does not explain what criteria it would use when issuing an order to implement a malfunction prevention program, so

an unsuspecting small facility could become subject to this provision and have no idea how the requirement occurred. These two regulations have applicability to every permitted facility in Jefferson County.

In addition, the LMAPCD has proposed to remove provisions of the regulations that provided a defense to enforcement for excess emissions during startup, shutdowns, and malfunctions, which have been longstanding defenses under LMAPCD, state, and federal law. Furthermore, significant burdensome reporting requirements and follow-up reports are being proposed well beyond the existing 911 contact system. These requirements, which the LMAPCD did not justify in the draft regulatory impact analysis, provide a significant amount of work for plant personnel, at a time when manufacturers have been reducing staff to compete in an ever tightening global market. Most significantly, none of these reporting features will in any way contribute to a reduction in toxic air contaminants in Jefferson County, the purported aim of the program, while increasing the paper work burden on industry.

Manufacturers Are Improperly Targeted By This Proposal

As the LMAPCD is well aware, there are many sources for the contaminants of concern that were identified in the West Jefferson County Risk Assessment. Specifically, area sources, as well as on-road and off-road mobile sources, have been identified in USEPA Region 4 studies as the sources of many of the STAR regulated contaminants in Jefferson County. Additionally, it is important to remember that the West Jefferson County Risk Assessment determined that chemicals of concern were identified at Otter Creek Park and the University of Louisville Shelby Campus above the EPA risk goals. There are no current plans to reduce emissions from any of these sources. It is clearly improper to place the burden of reducing contamination resulting from transport and mobile sources upon the shoulders of the local manufacturing community.

Careful scrutiny of the September 2002 Region 4 Relative Risk Screening Analysis suggests that even the very stringent standards proposed by STAR to be achieved by affected industrial sources will not greatly reduce the county's relative risk status. Specifically, it has been widely reported that Jefferson County's rank as "number 1" out of all 736 counties in Region 4 has been a compelling, primary motivating factor for air toxics regulatory reform. However, detailed review of the 14 variables that contribute to the relative risk ranking methodology suggest that toxic emissions from industrial sources are not the factors that have propelled Jefferson County to the top of the risk list.

In the screening analysis, six demographic statistics, three public health indices, three "NATA data" figures, geographical area, and the widely touted "RSEI" relative hazard rank were each weighted and compiled to yield a final matrix value for each county. Using these data and the EPA-weighted methodology, Jefferson County had the highest matrix value of all 736 Region 4 counties. However, statistical correlation of each contributing variable to the final matrix value shows that all six of the demographic statistics correlated:

1. to the study's final matrix values, with density of youth population correlating the most among all data considered (correlation factor = 0.88); and

2. at a value of 0.57 or greater, suggesting that the greater the population and population densities of the county are, particularly the demographics of sensitive populations (<18 and >65), the more likely that a county will rank high in the final matrix value, without consideration of any emissions or health figures.

The three 1996 National Air Toxics Assessment (NATA) data figures also seemed to strongly influence the study's findings, with correlation factors of 0.79, 0.78, and 0.73, respectively. However, it is significant to note that not only does the NATA data include emissions from all source sectors (not just industry), but that average diesel concentration as reported by NATA was the fourth most-correlating value out of all 14 considered (factor = 0.78). Therefore, it is important to note that mobile source emissions play a strong role in affecting overall county rank.

The 1996 NATA also used a fixed national risk background for several compounds, such as benzene, that are commonly emitted from mobile sources. According to EPA, the background risks in the 1996 NATA exceed one in a million cancer risk with no industrial activity included at all. The LMAPCD has not attempted to explain the relationship of high-biased background assumptions in the 1996 NATA and the risk calculations on which the STAR proposal was based. Therefore, the LMAPCD cannot meet its stated goal of risk reductions to one in a million cancer risk at all, justifying a change to an achievable risk target within EPA's normal one in a million to one hundred in a million in the EPA residual risk program.

The 1999 Risk Screening Environmental Indicator (RSEI) relative hazard rank is the only factor of the 14 considered that includes stationary sources' Toxic Release Inventory (TRI) data. However, even considering the TRI data from industry, this RSEI value correlates only somewhat to the Region 4 relative risk final matrix value with a correlation factor of only 0.56.

Finally, the three public health indices considered had no statistically significant correlation to overall relative risk. Cancer incidence values from the ranked counties correlated at a value of only 0.28, deaths from lung disease correlated at a vale of only 0.06, and deaths from heart disease had a *negative* correlation value (-0.18). That is, statistically speaking, the higher a county ranked in the Region 4 Relative Risk Screening Analysis, the likelihood of dying from heart disease is actually reduced.

In plain speak, yes, Jefferson County ranks first among all 736 Southeast counties for overall "risk" from air toxics. However, the county's rate of cancer incidence (per 100,000 people) is 22nd in the region (behind 12 other Kentucky counties), its rate of respiratory deaths (per 100,000 people) is 230th in the region (behind 57 other Kentucky counties), and its rate of cardiovascular deaths (per 100,000 people) is 525th in the region (behind 84 other Kentucky counties). These data clearly reveal that there are other underlying variables much more significant than risk from air toxics that have a much greater impact on public health.

Accordingly, a program that relies so heavily on emission reduction from industry will not significantly improve the county's relative risk status, as it is fundamentally flawed in two key considerations. First, toxic emissions from industry were only reflected in one of the 14 variables (RSEI rank), and the relatively weak correlation suggests that even if RSEI rank were

to improve greatly, overall relative risk would not improve in any corresponding manner. Not all of the 18 target chemicals are emitted by manufacturing facilities, so the attempts to reduce these risks in the current proposal cannot work for chemicals not emitted at affected facilities. Second, since the study indicated that risk from air toxics does not statistically influence public health, reductions in risk from air toxics will not improve public health.

The Association evaluated the impact of effectively removing industrial impact from the risk rankings used in the study. If the RESI score for Jefferson County was adjusted to the lowest non-zero score in Kentucky (68 counties had a zero score, due to the absence of any TRI-reported emissions), then the Jefferson County ranking dropped from first to fifth in Region IV, only behind the City of Jacksonville (Duval County, Florida), the City of Tampa (Pinellas County, Florida), and two suburbs of Atlanta (DeKalb and Cobb County, Georgia). A seemingly large reduction of the RESI score from the Jefferson County value of 6,033,973,936 to the Perry County, Kentucky score of 4,950 resulted in a risk reduction from a score of 0.57879 to 0.44085. A 50% reduction in Jefferson County's RESI score also placed Jefferson County fifth of all of Region IV, behind the same four counties listed above. The removal of industrial activity, and the resultant emissions, does not have a substantial impact on the risk profile of Jefferson County, due to many other factors not addressed in the proposed STAR package.

Therefore, STAR's heavy-handed focus on industry will not achieve the desired results, as relative risk rank will not drop, and there will be no measurable improvements to public health. If the goal of the STAR program is to reduce risks to the Jefferson County community, then the LMAPCD should have engaged the community in a multi-sector risk reduction program, as was done in the City of Cleveland, where residential air toxics risks were reduced by reducing mobile source emissions from school and transit buses before any industrial emission reductions were required.

No Relationship Between Ambient Concentrations and Emission Sources Has Been Identified by LMAPCD

The LMAPCD has identified 18 chemicals that spurred the development of the STAR program, and another approximately 200 chemicals that would be subject to the STAR program. However, the LMAPCD has never related these chemicals to their emission sources during the STAR development process. EPA has identified a number of STAR compounds as products of combustion from mobile sources, as shown in the table below:

Category 1 TAC	Category 2 TAC	Category 3 TAC	Category 4 TAC
arsenic compounds benzene 1,3-butadiene chromium compounds formaldehyde nickel compounds	lead compounds manganese compounds naphthalene toluene xylene	acetaldehyde acrolein mercury compounds polycyclic organic matter (POM)	ethylbenzene n-hexane, methyl tert-butyl ether (MTBE)
http://www.epa.gov/OMSWWW/regs/toxics/msatlist.pdf			

The LMAPCD must explain, in the regulatory impact analysis, the relationship between these compounds, the regulated facilities, and the unregulated mobile source emissions that

contribute to the data observed in the West Louisville air toxics study. EPA has estimated that half or more of the emissions detected in ambient air are emitted by mobile sources (http://www.epa.gov/otaq/f02004.pdf). Also, EPA has identified most of the above chemicals as products of combustion from natural gas external combustion (http://www.epa.gov/ttn/chief/ap42/ch01/final/c01s04.pdf), fuel oil external combustion (http://www.epa.gov/ttn/chief/ap42/ch01/final/c01s03.pdf), and many other combustion sources. Most of these sources are located in homes and at small businesses. A complete study of the sources of these TACs would likely show that the industrial sources targeted by the proposed STAR program are not the prevalent sources of these TACs, and that the risk reduction activities mandated in the proposed STAR program cannot reduce these specific risks to the LMAPCD's target risk levels.

No Relationship Between Community Risk and Emission Sources Has Been Identified by LMAPCD

The LMAPCD presents the proposed STAR program as a risk reduction effort for the citizens of Jefferson County. While the goal of community risk reduction is admirable, any risk reduction activity must be discussed in a manner where all risks to the community are fully disclosed. Absent a comprehensive review, the community cannot make informed decisions concerning the proper use of scarce resources to reduce risk. The Association recommends that any risk discussion include the approach described by Dr. John Paling in "Dealing With the Real Risks to Local Communities", (The Risk Communication and Environmental Institute, 5822 N.W. 91st Boulevard, Gainesville, FL 32653, 1998). Instead of evaluating all risk factors facing the community, LMAPCD focused on one risk factor that may or may not be important to the population of Jefferson County. The LMAPCD does not describe any other source of community airborne risks that may actually be risk drivers at one or more of the monitoring locations selected for the West Jefferson air toxics study in the regulatory impact analysis, and may be targeting the wrong risk factors with no data to justify the emissions to risk relationship from any source inside, or outside of, Jefferson County. The LMAPCD must include a detailed discussion of the source of risks in Jefferson County, the source of those risks noted in the West Jefferson air toxics study, and how the LMAPCD specifically plans on reducing total risk to the community in the regulatory impacts analysis. This regulatory analysis will also serve as a significant portion of the analysis that the LMAPCD has proposed in Regulation 5.30.

The Expansive Chemical List Has No Rational Basis

The STAR proposal is one instance where the LMAPCD has delivered much more than it promised. It "promised" to address the 18 chemicals of concern identified in the West Jefferson County Risk Assessment, but it has now incorporated more than 190 chemicals into the program, including the entire list of hazardous air pollutants from Section 112(b) of the Clean Air Act. Most notably, the program fails to establish *de minimis* levels for toxic air contaminants that can be comprehended by the community or industry. The proposed *de minimis* levels are calculated using an unprecedented formula that experienced air pollution professionals cannot immediately comprehend. Thus, any manufacturing plant, or for that matter, even a commercial facility with a boiler that consumes coal could be subject to the regulation because of the formation of HCl during the process of combustion. This was not a concern related in the West Jefferson County

Risk Assessment, but it is a reality for sources in Jefferson County. In fact, many moderate sources from the LMAPCD list will most likely have little, or no idea that they are subject to the new reporting requirements because they do not have qualified staff to inform them of this chemical reaction, let alone the means to determine if they meet *de minimis* criteria or, if the emissions are not *de minimis*, measure the amounts or model impacts.

Other apparently insignificant sources of emissions would need to be calculated and possibly reported under the regulation as it is currently written. As an example, some manufacturing plants use laser printers to label boxes for their products. The ink used in these processes may contain some toxic air contaminants on the LMAPCD's list. While it is likely that the volume of the ink released during a year would be substantially less than one pound, under the current proposed regulations, it would be the facility's obligation to determine compliance obligations under the program. If the program applied, the insignificant facility would be required to calculate, and in many cases, report and model the impacts that this printer has on the ambient air in Jefferson County. It is difficult to conceive that this was the intent of the Board when it read the West Jefferson County Risk Assessment and determined to devise a program to improve the health of Jefferson County residents.

A strict reading of the proposed STAR program would include the Thunder Over Louisville event as a potential source subject to the STAR program. In this annual event, over 60 tons of fireworks, containing and/or emitting several STAR-regulated compounds, are discharged into the Jefferson County airshed. Is it the intent of LMAPCD that the aluminum, copper, and other compounds used to manufacture fireworks, and the resultant products of combustion that launch the fireworks into the air, must be subject to air toxics regulations and emission reduction requirements?

The District should repropose the de minimis exemption to make it workable for industry, small business, and the community. In Regulation 2.16, the District identifies insignificant activities that are not required to be included in Title V operating permits. The District should explicitly exempt all such activities from any STAR program obligations. Many other activities that are known to carry very little risk, such as natural-gas fired boilers less than 10 million British Thermal Units per hour, should be added to a similar list to be included in Regulation 5, allowing facilities to exempt common, low-risk activities from STAR compliance activities when the District knows that these activities do not contribute to community inhalation risk.

Also, should the LMAPCD persist in including EPA's HAP list in the STAR program, the LMAPCD should cite directly to the Section 112(b) list instead of discretely listing each chemical. EPA changes, from time to time, the HAP list, and under the proposed STAR regulation, the LMAPCD would be required to conduct rulemaking to adjust to each change to the HAP list. For instance, the glycol ether ethylene glycol monobutyl ether has recently been delisted from the HAP list. If the LMAPCD incorporated the 112(b) list directly, then no rulemaking would be necessary to conform to EPA's list. As EPA adds chemicals to their list, LMAPCD would be required to conduct rulemaking to add a TAP to the STAR list, instead of relying on EPA's existing process.

The Proposal Will Further Paralyze Permit Modifications In Jefferson County

The proposed regulation will place additional burdens on existing businesses that intend to modify or expand their businesses, as well as place new burdens on all companies, not just the 173 identified to pay the new fees, for any process change, including a change in material at an existing business. The definition of "modification" has been expanded, thus bringing more operational changes for review before the Agency. This is not a bright prospect for permitted sources in Jefferson County.

At the current time, the LMAPCD is telling permittees that the review of a modification, even for replacement equipment, will take as long as 12 to 18 months to complete. Despite this, the LMAPCD insists on requiring construction permits for even equipment replacements that will reduce emissions in Jefferson County. Currently, there are at least three companies in Jefferson County that have proposed to replace existing pollution equipment with new, better designed and operating equipment, that have been unable to obtain construction permits because of the overload on LMAPCD staff. These are real pollution reductions that cannot be made because of the LMAPCD's inability to process these applications. The proposed increase in work for the LMAPCD under this new program, despite the potential new hires, will only lead to further backlogs of traditional modifications, which in turn will delay the implementation of projects that can easily be demonstrated will reduce air contaminants in Jefferson County.

Further, the extensive resource drain that the proposed STAR program places on LMAPCD personnel is very likely to distract the LMAPCD staff from the mandatory task of implementing the 2002 New Source Review reform regulations that are due in 2005, as well as the pending attainment demonstrations for the 8-hour ozone and $PM_{2.5}$ standards. The Association requests that the LMAPCD address staffing needs for all programs in their regulatory impact analysis, so that the regulated community does not see LMAPCD resources diverted from their overloaded permitting program to other important, but still resource-constrained programs.

The Technical Provisions Of The Regulation Need More Review Time

The heart of the STAR Program is found in Regulations 5.20–Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant, 5.21-Environmental Acceptability for Toxic Air Contaminants, 5.22-Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant, and 5.23-Categories of Toxic Air Contaminants. As the titles to these four sections make clear, these are highly technical and, in some instances, confusing provisions that are not easily understood. As we understand these regulations, some were taken from other programs around the country, although significant portions may have been omitted when they were incorporated into the STAR Program (e.g., *de minimis* levels that are incorporated into other programs). Nowhere has the LMAPCD justified how the use of the Michigan air toxics regulations, the Texas Highly Reactive Volatile Organic Compound leak detection and repair program, or the Texas affirmative defense program is justified within Jefferson County. Just because another jurisdiction promulgates a regulation to respond to a unique local situation does not represent justification of the same regulatory language for a vastly different situation in Jefferson County. A number of our member

companies and other permitted sources in Jefferson County, as well as trade organizations, have submitted initial comments, and are submitting formal public comments, on the technical deficiencies of these proposals. We will not reiterate all of those concerns, but do wish to express our strong concern about the impact that these regulations will have on our members, many of whom have truly insignificant releases of toxic air contaminants.

In short, these regulations require regulated companies to inventory their toxic air contaminants, model their releases of toxic air contaminants and determine the maximum ambient concentration that will be allowed for those contaminants. Many of our member companies subject to these regulations will be unable to fully understand, let alone implement, this very complex series of regulations. Even our members with environmental staff who have experience with reporting toxic air contaminants through EPCRA reporting requirements and/or other air toxics regulations that apply to our member's facilities in other parts of the country, have expressed their concern as to how they can properly comply with these regulations. As the regulations stand today, if adopted, many of our larger sources would not have the information available to provide the emissions inventory in the required time frame. The LMAPCD is requiring companies to report on information that they have not been collecting, which is clearly inappropriate. Furthermore, the LMAPCD must justify why it borrowed regulations from other jurisdictions, how the special circumstances that caused those regulations to be promulgated apply to specific sources in Jefferson County, and why the LMAPCD rejected many alternate regulatory schemes that exist in other jurisdictions around the country.

The LMAPCD has acknowledged that it has only prepared a very preliminary cost-benefit relationship of these regulations, which has not considered the technical and economic feasibility of the program. The only way that the LMAPCD can acquire this information is to meet with our member companies and others to discuss the impact of these proposals on each of those companies. This Association is hard pressed to understand the benefits that the LMAPCD, the community, or the environment will see from one of our member companies spending thousands of dollars to provide the LMAPCD the amount of toxic air contaminants that are released from a laser jet printer in the back of a warehouse in an industrial park. And, while it may be "technically" feasible to calculate the emissions and the maximum ambient standard, much time and money will have been wasted on an effort that would be of no value.

The LDAR Regulations are Unprecedented in the United States

In the response to informal comments, LMAPCD has used the Texas Air Quality Study, and the Highly Reactive Volatile Organic Compound (HRVOC) LDAR program developed as a work product of the Texas Air Quality Study, as a justification for needing the enhanced leak detection and repair regulation. However, APCD has failed to take into account some significant differences between the industries that participated in the study and the affected facilities located in Jefferson County. The Texas Natural Resource Conservation Commission (TNRCC, now known as the Texas Commission on Environmental Quality, or TCEQ) conducted the study to address extensive problems with attainment of the 1-hour ozone standard in the Houston-Galveston severe nonattainment area. TNRCC joined the National Aeronautical and Space Administration (NASA) in fly-over studies of the Houston Ship Channel, the most industrialized

local area in the entire United States, to identify specific contributors to the Houston area ozone loading into the airshed. TNRCC and NASA identified four compounds that disproportionately contributed to ozone formation over the Houston Ship Channel -- ethylene, butylenes, propylenes, and 1,3-butadiene.

Once these compounds were identified, TNRCC identified two facilities emitting substantial amounts of these chemicals, now known as HRVOC chemicals, to study in preparation for the January 2004 rulemaking. The Texas facilities were both olefin facilities which operate large pipelines at throughputs of 450,000 to 600,000 lbs/hour for each process unit. A fugitive leak at these types of facilities is significant because even the tiniest leak will emit large quantities of HRVOC material. Leaks at these facilities, as well as the numerous refineries and other large petrochemical facilities emitting HRVOCs, merit additional scrutiny.

By comparison, the throughput of all of the facilities in Jefferson County that are currently subject to a federal leak detection and repair program do not add up to the throughput of just one olefin facility each day. With the exception of 1,3-butadiene, none of the HRVOC chemicals even appear on any of the proposed STAR toxic air pollutant lists. In addition, the olefin units are predominantly processing gases, while the Louisville facilities are processing a combination of liquids and gases. So, the impacts of a leak in Louisville are not significant because of limited throughput, lower vapor pressures, and vastly different chemistry being conducted by chemical plants in Jefferson County than the refineries in the Houston Ship Channel. Even TCEQ recognizes the differences between this isolated case and the LDAR programs required of non-HRVOC facilities and HRVOC facilities located in areas that are not severe nonattainment areas under the 1-hour ozone standard. LMAPCD has not conducted or published for public comment any analysis describing why such an onerous LDAR program is necessary in the very different Jefferson County airshed. If the LMAPCD wishes to model an appropriate LDAR program on the Texas regulatory structure, it should pursue the 28VHP program, not the very-limited-case HRVOC program. Other LDAR programs exist around the United States that may serve as more appropriate models such as Michigan's R336.1628. Use of the Texas HRVOC program for non-HROVC chemicals in the United States is unprecedented, unjustified, and inappropriate.

Technical LDAR Issues

AIK has identified several technical issues that compromise the STAR program, as described below. Additional technical issues are listed in Attachment 1 to this letter.

The processes that are already subject to Part 60, 61, or 63 or RCRA Subpart BB LDAR do not have identical requirements. The various federal leak detection programs have been developed over the years to address particular industries. They are not one size fits all. Examples of areas with differences between the federal programs are written plan requirements; leak identification removal; calibration gas; schedule for monitoring skip periods; valve, pump, connector, agitator, pressure relief device, instrumentation system, compressor, sampling connection system, product accumulator vessels, and control device requirements; and various alternative means. Overlaying the HON on source categories for which it was not intended would negate some germane exemptions found in the appropriate applicable source category

LDAR program. Streamlining will not fix this problem, since the most stringent requirement must be chosen. However, eliminating source category specific exemptions will have little value in reducing TAC emissions, since the reason the exemptions exist in the first place is because there are minimal emissions associated with the exempted process/equipment.

Regulation 1.21 should be revised to incorporate the affected facility-specific federal LDAR program, rather than generically applying the HON, 40 CFR Part 63, Subpart H. This is necessary because the federal LDAR programs are process and organic hazardous air pollutant specific regulations based upon the chemical, concentration, hours of operations and other requirements. Compliance requirements are targeted to components that are capable of emitting significant quantities of organic hazardous pollutants. As proposed by the District, the enhanced LDAR program does not adequately define the scope of the program as it applies to processes or chemicals used at affected sources. As a result, the District's program could conceivably apply to equipment within covered processes that have minimal hours of operation or dilute concentrations of organic hazardous air pollutants even though emissions from such equipment are insignificant.

The District has misinterpreted the informal comment, "There's a much higher likelihood for compliance to be achieved by simply adjusting (lowering) the leak definitions within the existing applicable federal LDAR programs." The intent is to suggest applying the lowered leak definitions to the existing applicable federal LDAR program instead of applying the lowered leak definition and requiring all facilities to use the HON program for LDAR. However, it was never the intent to eliminate all of the additional enhanced requirements of the proposed regulation in favor of only applying the lowered leak definition to the existing program.

The LMAPCD argues that not all LDAR programs are the same, which is true; however the enhancements provided in the revised regulation proposed by Greater Louisville, Inc., eliminate the major differences in the various LDAR programs and thus support the desired emission reduction without requiring every company to standardize on one LDAR program. The LMAPCD's insistence on HON program standardization for all companies appears to be intended to reduce LMAPCD's workload at the expense of affected facilities**.** Even with streamlining, the various facilities will still have differing LDAR requirements and the apparent convenience to LMAPCD inspectors will be lost. Many facilities in Jefferson County are in the process of implementing LDAR programs for the 10-year MACT standards, including 40 CFR 63 Subpart TT/UU programs under the Miscellaneous Organic NESHAP, 40 CFR 63 Subpart FFFF. In addition, several facilities utilize RCRA Subpart BB monitoring on parts of their facilities to comply with RCRA systems where the LMAPCD did not explicitly exempt RCRA Subpart BB monitoring from the STAR program. EPA has recognized that Subpart UU is equivalent to Subpart H (as well as 40 CFR 65 Subpart F, the Consolidated Air Rule). The LMAPCD should develop regulatory language that Subpart H, UU, or 40 CFR 65 Subpart F are equivalent to Subpart H.

The preliminary regulatory impact analysis suggests the community will need to add 5 Full Time Equivalents [FTE] to come into compliance with the HON portion of the program. At current industry rates for appropriately qualified employees, this is an estimated cost of $475,000

per year, including benefits. AIK understands that four of the five FTEs would be at facilities with continuously monitored emissions, which means these facilities identify leaks at the time of occurrence. Consequently, they have very low quantities of fugitive emissions, significantly less than a ton. For these two affected facilities, the cost to implement Regulation 1.21 is approximately $40,000,000 to $440,000,000 per ton. It is presented on a $/ton basis for comparison with alternative methods of emission reduction. (See Attachment 2 for the calculations.) LMAPCD has failed to estimate a cost per ton for emissions reductions resulting from this proposed regulation. Therefore, LMAPCD has not evaluated the benefit of reducing emissions against the cost of implementation to justify the program. The exorbitant cost of LDAR implementation does not justify the miniscule emission reduction.

The chemical applicability of the regulation has still not been adequately defined. The unintended consequence of using the term "organic compound" is it does not specifically state that the applicability of Regulation 1.21 is for the same regulated substance as the Part 60, 61, or 63 applicability. As currently phrased, "organic compound" can be construed to expand the District's LDAR program to all organic compounds, not just the hazardous air pollutant(s) that trigger the federal LDAR program or the 18 compounds that the LMPACD identified as high-priority chemicals. This needs to be corrected.

The criteria for the LMAPCD requiring more frequent monitoring are not described in the proposed STAR regulation. Without discrete criteria in the STAR program, the LMAPCD could arbitrarily request compliance with a regulation with no justifiable applicability determination, and without the criteria for the decision ever being subject to notice and comment rulemaking. Under the draft STAR regulation, it is not clear if the requirement to initiate an LDAR program, under unwritten applicability, can be appealed as a final agency action. This condition constitutes an unconstitutionally vague provision that cannot withstand judicial scrutiny. Subpart H includes the Quality Improvement Program to document when more frequent monitoring is required. The LMAPCD should adopt this provision as the sole criteria for requiring more frequent monitoring.

As proposed by the District, it is not clear whether the purpose of the audit program is to verify the facility's leak rate or determine if leaking components have been repaired. The presence or absence of equipment leaks is not a violation of any applicable requirement, since all LDAR programs allow leaks, so long as the repairs are conducted as required under the underlying applicable requirement. If the purpose is to verify the leak rate, then the monitoring required is in vain. Repairs made to leaking equipment will change the leak rate measured and no verification will be forthcoming. If the intent is to determine if leaking equipment has been repaired, then only equipment that has leaked should be considered for monitoring. Please remove the monitoring section altogether. The resulting program will still demonstrate that the monitoring performed by the affected facility is comprehensive and complete, much like auditing requirements imposed by the Sarbanes Oxley Act. The LMAPCD has not attempted to justify the costs, and lack of benefits to the community, in their draft regulatory impact assessment, primarily because this unprecedented program cannot be justified technically or economically.

The District's program is similar to and based on Texas regulation 30 Tex. Admin, Code §115.788, Audit Provisions, which applies only to a limited class of volatile organic compounds determined by Texas to be highly reactive ozone precursors, as described above. Consequently, the District's program, which applies to organic compounds, unnecessarily encompasses thousands of potential chemicals that do not pose the level of risk contemplated by the Texas program.

The District has not fully clarified the applicability of Section 14 of proposed Regulation 1.21for inorganic LDAR, yet; although the District's response to informal comments 1.21-55 better defines the intent. As it stands, the current phraseology still has the unintended consequence of subjecting to the District's inorganic LDAR program all inorganic TACs present at affected facilities with federal *organic* LDAR programs. This is clearly not the District's intent since the response to informal comments states, "Other than the 'HCL MACT,' there is no other required LDAR program that addresses leaks of inorganic compounds. Thus, no other process unit would be defined as an affected facility pursuant to section 1.1.1." The statement added to Section 2 of the regulation does not correct this unintended consequence.

The STAR Program Is Inappropriate Compared to Air Toxics Regulatory Programs In Most of the United States

The LMAPCD developed the STAR program as the starting point to reduce airborne risks in Jefferson County. However, Associated Industries of Kentucky members operate facilities around the United States, and throughout the world. Facilities within Jefferson County, especially those several large facilities owned by trans-national corporations, must compete with facilities in other states, other countries, or other continents, for work. In this reality, member companies compare any proposed regulation to regulations in other areas where the member companies operate to determine the appropriateness of the regulation, or the appropriateness of expanding operations in a specific existing plant.

The LMAPCD should review two peer groups of states to determine if the proposed STAR program is appropriate for jurisdictions managing rather similar circumstances. While the LMAPCD seemed to identify a peer group only including the most onerous air toxics regulations (Michigan, Texas-HRVOC, Oregon, Vermont, California) in the response to comment document, Associated Industries of Kentucky recommends that the LMAPCD should more seriously consider two groups of peer groups: Kentucky and adjacent states, and the Region IV states comprising the comparison in the West Louisville Air Toxics Study. Of these peer groups, several states do not have a formal air toxics program, including Tennessee, Missouri, Indiana, and Illinois. These jurisdictions use a combination of their existing state permitting programs, EPA source reduction programs, and national ambient air quality standards programs (including NO_x and VOC RACT) to manage their airsheds. Unlike the LMAPCD, these agencies are not publicly stating that EPA's source reduction programs are not working. They are actively relying on the EPA's recent fuel desulfurization rule to reduce thousands of tons per year of various volatile organic compounds, including almost all of the volatile organic air toxics identified by the LMAPCD as high-priority chemicals in the West Jefferson County Air Toxics Study. As this rule will be implemented between now and 2007, the LMAPCD should include a

detailed analysis of the substantial impact of this fuel rule, already in place, on the risk factors identified in the study before asking for risk reductions that won't impact real risk. Additional reductions from the implementation of the 1997 ambient air quality standards, which will be completed before 2010, will also help these jurisdictions meet their obligations without the onerous conditions of the proposed STAR program. If other states can use the EPA programs to manage air quality without an onerous program, it is hard to see why the LMAPCD needs such a program.

As the LMAPCD well knows, Kentucky is currently developing an air toxics program that will include a comprehensive risk evaluation of all risk factors, including mobile sources, major fixed sources, and other sources. The LMAPCD should include a comprehensive risk analysis of exactly what risks the STAR program will manage before finalizing any rule. This analysis should include all co-benefits of several existing emission reductions programs already in place, including those programs voluntarily being conducted by local facilities to reduce emissions for various non-regulatory or regulatory reasons.

Both North Carolina and South Carolina operate site-wide air toxics programs, with emissions limits promulgated in their rules and five-year air toxics reviews (attached to the operating permit renewal cycle) to allow the public to ensure that updated toxicology data can be incorporated into air toxics reviews in a manner that the public can participate in on a known and published schedule. The modeling protocols in these rules are not as overly-proscriptive as the proposed STAR regulations are, but are workable for industry, the agencies in the Carolinas, and the public.

If the LMAPCD wishes to review additional air toxics programs for comparison, the Louisiana and Texas programs are similar to the North and South Carolina programs, but with less stringent toxics limits. Since Texas does not publish their Effects Screening Levels in their regulations, these levels cannot be used as regulatory limits at facilities complying with the Texas air toxics regulations. The LMAPCD's unwillingness to publish their air toxics limits will relegate these values, which LMAPCD believes publishing on their web site as appropriate for regulation, as mere guidance that cannot be defended in case of a permit challenge.

Unfortunately, EPA's evaluation process is tied up in the IRIS process, which is several years behind in updating the science behind risk evaluations pending at EPA. EPA recognizes that these values are not appropriate for regulatory certainty, and informs users of IRIS data that the information should only be used as guidance. EPA is still developing its philosophy on using IRIS in the MACT residual risk program, and the LMAPCD should await EPA's decision, and any challenges of that decision, before assuming that the IRIS protocols are appropriate for use in air toxics regulations.

The LMAPCD has portrayed Michigan's air toxics limits as scientifically based. Unfortunately, Michigan's system does not allow any challenges to the limits set in disparate permit actions, often not even in the permit action where the limit is set or revised. As there is no demonstration of scientific certainty in the Michigan air toxics system, the LMAPCD must not use Michigan air toxics values as indicative of any regulatory conditions.

The LMAPCD has also utilized California air toxics limits as appropriate for use in air toxics reviews within Jefferson County. While the California Air Resources Board is known to use more appropriate science in developing their air toxics limits, Associated Industries of Kentucky members do not have the opportunity to participate in rulemaking activities conducted in Sacramento, California unless their parent companies have significant operations in California. Remote air toxics limits should only be used as guidance to aid LMAPCD staff in developing local regulatory air toxics limits, unless the LMAPCD wishes to abandon mandatory guidance as proposed in the draft STAR rule. If the LMAPCD is interested in adopting parts of the California process, then the 10^{-5} risk target used in most California jurisdictions, such as the Bay Area air district, should be included in the proposed STAR program. Even in California, often seen as the "gold standard" of air toxics programs, no attempt is made to drive industrial risks to 10^{-6}, primarily due to cost effectiveness concerns. The California Air Resources Board has requested that the local agencies regulating facilities in California ensure that emission reductions are obtained in the most cost-effective manner, and that reductions are not obtained using the most politically expedient manner to force reductions. The Association requests that the LMAPCD discuss various risk targets and cost effectiveness thresholds used around the country, and not just from those few jurisdictions cited in the response to comment document, and compare these targets to the proposed STAR regulation.

Several Proposed STAR Elements Do Not Provide Due Process

In proposed Regulation 1.20, the LMAPCD proposed that, under certain unspecified conditions, a facility must provide the LMAPCD with a "Malfunction Reduction Plan." The LMAPCD never explains the criteria under which such a plan would be required. A facility could become subject to this provision with no notice, no direct cause, and no explanation. In proposed Regulation 1.21, the LMAPCD proposed that, under certain unspecified conditions, a facility must provide the LMAPCD with an LDAR plan. Again, no process conditions are proposed. Also, in proposed Regulation 5.20, the LMAPCD is proposing that a benchline ambient concentration developed for one facility is applicable to all facilities in Jefferson County, and that all facilities in Jefferson County are held bound by that determination. The Kentucky Brownfields program, which the Association, the Kentucky Department of Environmental Protection, and other stakeholders participated in the development of, anticipated case-by-case determinations of relative risk factors from specific projects. Under the Kentucky Brownfields program, no other facility is held bound by any risk parameter developed for another project, as the LMAPCD is proposing in Regulation 5.20. Should the LMAPCD insist that all facilities are bound to the first benchline ambient concentration limit derived for each TAC, then these limits must be considered regulation, and must be subjected to the notice and comment process, and, if necessary, judicial review of a final agency action. Otherwise, the LMAPCD must designate, as Kentucky did during the Brownfields process, that all benchline ambient concentration determinations are case-specific and may not apply to other facilities in Jefferson County. The Association requests that, in each case where LMAPCD judgment is required to implement a program, that adequate safeguards and reviews are available to industry and the Jefferson County community to ensure that appropriate science, regulatory applicability, and logic are used during the STAR program implementation process.

The LMAPCD Is Ignoring Other Ongoing Programs That Will Reduce Risk

In the draft response to comments, the LMAPCD discounts EPA's ongoing efforts to reduce emissions from major sources of hazardous air pollutants and from mobile sources. While the MACT residual risk program is behind schedule, other EPA emission reduction efforts continue. The gasoline desulfurization regulations now going into effect will have a dramatic impact on ambient air toxics levels of many chemicals identified in the West Louisville air toxics study. The MACT program will cause significant air toxics reductions in many Jefferson County facilities between now and the 2007 implementation of the last MACT standards. Several facilities are also voluntarily implementing pollution reduction projects, pending LMAPCD permitting, that will positively impact facility-based emission risks. The LMAPCD should include a detailed evaluation of what emission reductions are already occurring in Jefferson County in the detailed regulatory impact analysis, so that the community can assess the value of various emissions reduction efforts already underway and what incremental risks remain after emission reduction efforts that are already occurring and will be completed before any efforts from a final STAR program would be implemented. The Urban Air Toxics/Area Source MACT program now being implemented by EPA will reduce risks associated with 34 listed air toxics by 75% nationally. Approximately 15 of the 60+ regulations that EPA will develop under this program have already been completed, and EPA is developing many more for promulgation in the next two years. The Urban Air Toxics/Area Source MACT program, which is now operating under unified management at EPA, not only includes all industrial sectors targeted by the proposed STAR program, but reaches into local chromium plating operations, solvent degreasing facilities, dry cleaners, auto body refinishers, and other facilities not within the current scope of the STAR program.

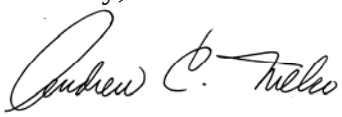
As Jefferson County prepares to develop regulations to implement the 1997 National Ambient Air Quality Standards (NAAQS), including the 8-hour ozone standard and the PM2.5 standard, additional emission reductions from all sectors, including major sources, area sources, electric utilities, and mobile sources, must be evaluated so that the District can demonstrate attainment with the NAAQS standards over the next few years. The required emission reductions may or may not be the same that the LMAPCD is attempting to achieve in the proposed STAR program. The Association requests that the LMAPCD conduct a detailed analysis of the proposed STAR impacts as compared to the anticipated reductions needed for the LMAPCD to demonstrate attainment with the upcoming NAAQS standards. It would be unfortunate if the LMAPCD promulgated the proposed over-reaching STAR program to find out after the fact that the risks observed in the West Louisville air toxics study no longer exist.

The Association appreciates the LMAPCD offering proposed Regulation 5.30 as part of the STAR program. However, the County-wide risk assessment required under Regulation 5.30 should be completed before any other part of the STAR program, other than the process of building the emission inventory system anticipated under the proposal, is promulgated. The completion of the Regulation 5.30 assessment will be very helpful in guiding the LMAPCD in completing all facets of the STAR program, especially those proposed in Regulations 1 and 5. The LMAPCD should adopt Regulation 5.30 immediately while the LMAPCD, industry, and the Jefferson County community work to resolve the significant issues remaining from many other parts of the STAR proposal. The Association looks forward to assisting the LMAPCD in the

Regulation 5.30 process to avoid the Jefferson County community's spending large amounts of resources to later find out that the real risk drivers are only exposed after the STAR program is implemented.

Associated Industries of Kentucky is fully supportive of environmental requirements that are necessary to protect human health, consider cost-benefit relationships, consider technical and economic feasibility, and are based on sound science. The Association believes that the LMAPCD should, prior to finalizing any local air toxics program, convene a series of consensus building meetings with interested parties in order to discuss this topic. We welcome the opportunity to further discuss our concerns in this matter. Any questions you have may be addressed to Mr. Rusty Cress, Executive Director of the Chemical Industry Council at (502) 875-0050 or lrc2@gdm.com.

Sincerely,



Andrew C. Meko
President and CEO

Attachment 1
Technical LDAR Issues
Regulation 1.21

- The LMAPCD should revise the program to delete provisions, such as Sections 1.6, 3.1 and 5.3 relating to water seal controls and process drains, which were taken in part, but not in total, from Texas regulations. Incorporating a portion of a regulation is inappropriate, especially when the LMAPCD does not document the regulatory impact of adding any such provision to the STAR program.

- If various types of equipment, such as connectors, agitators, and sampling connection systems, are already covered in a Federal LDAR program, then they should not be included in the APCD program in Section 3.1 or in the accounting of leakers in Section 3.2. Including these equipment types in both the federal leak calculation and the APCD leak calculation is misleading.

- The leak definitions at Section 1.4 are arbitrary. The leak definitions should be changed to be equal to 50% of the HON leak values. These meet the District's goal of being more stringent than the federal rules and potentially reducing emissions, while being reasonable levels for facility action. Also, new definitions for leaks should be revised added to reflect the federal rules' recognition that pumps in different services have specific leak definitions for valid reasons. There is no distinction made for service for all components - i.e. reactive monomer service and food/medical service. This should be made consistent with the MACT LDAR programs, particularly with respect to pumps.

- The LMAPCD did not adequately address how a facility should manage a leak that has been reduced from >10,000 ppm to <10,000 ppm (although not stopped yet) through extraordinary efforts. Once the excessive emission rate has been controlled, a facility should be allowed the "regular" repair time to complete the repair, as the "fast track" repair schedule is meant to ensure that high-rate leaking components are mitigated as soon as possible. A facility may not always be able to control a leak to below leak detection thresholds in one attempt, and should not be penalized for successfully affecting a partial repair where the leak rate is reduced to a lesser regulatory classification.

- Shaft sealing systems should only be required of equipment meeting the minimum service criteria of the applicable federal LDAR regulation: 5% OHAP service [Subpart H], 10% VHAP service [Subpart V], etc… In the District's response to informal comments the intent to enhance the federal LDAR requirements is stated. However, there is little value in requiring expensive equipment alterations for equipment that is not considered regulated by the applicable federal rule because its contents are so dilute. Leaks from equipment in dilute service are insignificant in their total mass of emissions. In some cases, the material's solubility is lower than the service requirement and no emissions would be expected. Therefore, requiring shaft sealing systems for equipment in dilute chemical service is not a cost effective use of limited capital resources. In

addition, if the leaks from such a shaft system are significant enough to require controls beyond frequent monitoring, closed vent conveyance to a control device must be included as a control option in lieu of shaft sealing systems. The LMAPCD should refer to 40 CFR 63 Subpart SS for closed vent requirements when closed vent conveyance is required for LDAR components requiring emissions controls.

- The terminology for "continuous vacuum service" in Reg. 1.21 should be consistent with the "vacuum service" language used in various MACT LDAR programs.

- The "minor modifications" already considered within EPA Method 21 (such as different calibration gas) should not require APCD approval. In the response to informal comments, the District concurred in 1.21-43. However, the requirement for District approval remains for changes in calibration gases. Again, this should be removed since EPA Method 21 already requires appropriate demonstration of the adequacy of a change.

- The HCL MACT only requires that the facility develop a site-specific program, which is expected to consist of audio, visual, and olfactory monitoring, and is not intended to require instrument monitoring systems that do not exist. The District should consider citing the appropriate sections of 40 CFR 63 Subpart NNNNN as the applicable requirement for inorganic leak detection monitoring to alleviate the confusion.

Attachment 2
Technical LDAR Issues
Regulation 1.21

Emission Reduction Costs

Example 1:

- Company 1 estimates the proposed LDAR program will have no emission reduction effect, since they already manage their program with similar leak detection objectives. Since it is not possible to divide by zero, assume 1 lb of emissions reductions will be achieved.

- The estimated cost for Company 1 to add 2 appropriately qualified Full Time Equivalents to come into compliance with the HON portion of the program is $200,000.

- The estimate for the audit program is $20,000.

- The cost of monitoring equipment purchase and maintenance has not been included, nor has the cost of any data management system.

- Therefore:

$$\frac{\$200{,}000 + \$20{,}000}{1lb} * \frac{2000lb}{ton} = \$440{,}000{,}000 / ton$$

Example 2:

- Company 2 estimates the proposed LDAR program will have minimal emission reduction effect, since they already manage their program with similar leak detection objectives. Assume 10 lb of emissions reductions will be achieved.

- The estimated cost for Company 2 to add 2 appropriately qualified Full Time Equivalents to come into compliance with the HON portion of the program is $180,000.

- The estimate for the audit program is $20,000.

- The cost of monitoring equipment purchase and maintenance has not been included, nor has the cost of any data management system.

- Therefore:

$$\frac{\$180{,}000 + \$20{,}000}{10lb} * \frac{2000lb}{ton} = \$40{,}000{,}000 / ton$$